Jupiter Capitolinus. The arch was afterwards built in Via Sacra, by the senate and people of Rome, in honour of the Emperors Vespasian and Titus, to perpetuate the victories they had gained, and particularly for the taking of Jerusalem, commemorated by two bas-reliefs on the sides of the passage under the arch, in one of which is represented the emperor in a chariot drawn by four horses abreast, attended by senators, all crowned with laurel; the other represents the triumphal procession wherein are carried the utensils and vessels of the temple previously spoken of. The edifice is entirely of white marble, and the courses are laid dry, without mortar. The base or pedestal of this monument is in height 8 feet 3 inches ½; the column, including the capital, base, and socle under it, 20 feet 5 inches ½; and the entablature 4 feet 11 inches ½. The attic bears the inscription, SENATVS POPVLVS QVE ROMANVS DIVO TITO DIVI VESPASIANI F VESPASIANO AVGVSTO, the letters of which are cut deeper into the marble at some places than in others, which induces an opinion that they were originally of bronze. Over the arch there is a little chamber vaulted in the contrary way to the arch, probably constructed only to lighten the mass of the building.

Of modern triumphal arches, that called L'Arc de Triomphe de L'Etoile, at Paris, is the most imposing. It was designed by the Emperor Napoleon as a monument to the glory of the French armies; the first stone was laid on his birth-day, August 5th, 1806, but nearly thirty years elapsed before it was entirely thrown open to public view. The bas-reliefs adorning this structure are most elaborate; in fact, a sculptured history of the great events that followed the revolution, and which, together with minor accessories, are appropriately summed up in the brief designation applied to the four most striking groups, viz. *le depart* (1792), *le triomphe* (1810), *la resistance* (1814), *la paix* (1815). Thirty shields bear inscriptions of as many victories; and the names of three hundred and eighty-four veterans of rank are inscribed in four groups of six columns each. The dimensions of this arch greatly exceed those of the Roman period, its height being 161 feet, breadth 146 feet, thickness 72 feet; height of the grand archway 67 feet, and of the lateral arches 60 feet. The cost is said to have approached 40,000*l.*; and it is remarkable that the work was carried on in something like equal portions under the empire, the restoration, and Louis Philippe.

When, after this, we look at our attempts at commemoration of the military prowess of Britain, they absolutely sink to insignificance; structures of comparatively small dimensions, inappropriately placed, and whatever of dignity may have been purposed, lessened by the bristling spear-heads of an iron fence, enclosing a few stunted evergreens. Built, too, of a material extremely friable in its nature, and already exhibiting symptoms of decay in the better efforts of the sculptor. Strange parsimony in a people proverbial for wealth, and lavish in bestowing it upon the transitory pageants of courts, and the more than luxurious support of their appendages!

GOVERNMENT EDUCATION. — The Privy Council have ordered the plans of the first Industrial School under the new system of education to be published in their forthcoming report. This is to be erected at Kirkdale, near Liverpool, from the designs of Messrs. Lockwood and Allam, and is for the support and education of 1,200 children divided into three classes—infants, boys, and girls. The plans are remarkable for simplicity of arrangement and capabilities for the master's and matron's supervision of the charges to be intrusted to them. Well ventilated workshops for the teaching of carpentering, tailoring, shoe-making, &c., are found upon the male side; and upon the female side are those of laundry work, straw platting, &c. Some notion may be formed of the extent of this edifice, by mentioning that the space occupied by the masonry alone will cover upwards of six acres of land. An infirmary, detached from the main building, is provided for all the diseases prevalent amongst the juvenile poor. The style is Tudor Gothic, executed in red brick and stone dressing. The site is on an open rising ground of considerable altitude, commanding the mouth of the Mersey.

Literature.

Companion to the Almanac, 1844. Charles Knight & Co.

It is not unlike a work of supererogation to speak in praise of a number of this series; we have now for many years been greeted on the advent of the new year with the "Companion to the Almanac of the Society for the Diffusion of Useful Knowledge;" this last, to our mind, is one of the best. It contains, as usual, a mass of information, the cream of volumes; but it claims our attention particularly for its bearing upon the Building Art; it goes to such an extent, in fact, in this respect, as almost to deserve the title of *The Builders' Annual*—of course, when we speak of the builders, we mean, as we have frequently explained, the architect, engineer, &c. as well as the constructor and operator. The fifth chapter is of sixteen pages, a complete treatise on "PAVEMENTS FOR TOWNS;" it is calculated to answer the purpose of the inquirer, even for practical ends, in many respects as well as Sir Henry Parnell's more bulky treatise, and it goes much farther, by bringing the information up to the present period, including, of course, roads of "wood, bitumen, and dressed granite." We will venture to say that many persons taking this essay in hand will be enabled to make good show of experience, and acquit themselves most creditably in road making; it might do very well, indeed, to be extracted and pass current under the title of the *Road Makers' Manual*.

In support of our opinion thus expressed, we have only to enumerate the heads of the paragraphs in the essay. It commences with one in reference to the late pavements of London and other large towns, which is also curious in reference to the condition of London three or four centuries back; it says—

"There does not appear to be any precise period named when London first became paved, for, like most improvements, it has been developed gradually. We have a kind of negative proof that Cheapside had merely a soft earthen roadway in early times; for the chroniclers relate that on one occasion, when Bow Church was unroofed by a violent storm of wind, four beams, each twenty-six feet in length, sank so deep into the ground that scarcely four feet appeared above the surface. Anderson, quoting the words of an earlier writer, states that in the year 1417, 'the highway named Holbourne, in London, was so deep and miry, that many perils and hazards were thereby occasioned, as well to the king's carriages passing that way as to those of his subjects; he therefore ordained two vessels, each of twenty tons burden, to be employed at his expense, for bringing stones for paving and mending the same.' Anderson also speaks of the first paving of one particular part of the metropolis in the time of Henry VIII.; of another in 1544; of others in 1571 and 1603; and of Smithfield in 1614."

The various modes of pavement are detailed and commented on, ascribing them to their authors, and giving the accompaniment, in important cases, of a careful estimate. Pebble paving, rubble paving, granite squares, granite tramways, and horse tracks, the different foundations and different structures of roads, all relating to stone pavements, occupy one section of the chapter. Then comes the mention of Seyssell and Scotch asphalte, the Bastenne and Parisian bitumen, accounting as to the ingredients, the composition, the mode of laying down, places where laid, result of trials and the like; and after this follows a notice of several new plans for road making that appear not to have been carried further than the Patent Office, or publication.

It is calculated to astonish on reading the account of the multitudinous traffic of carriages in the London streets, out of which arises the natural inference, how important it is to have the best system of paving in these streets. A total of upwards of 11,000 vehicles in twelve hours have been noted to pass and repass in King William-street, but since that account was taken it has been greatly on the increase. Hence has arisen a feeling among vestry and paving-boards of a desire to make selection of the best plan. Companies have been formed not only, as this paper observes, to manufacture and lay down pavements, but associations for the purpose of directing and promoting the application of the best plan. We may instance as at the head of this class, "The Marylebone Practical and Scientific Association for promotion of Improved Street Paving."

A lengthened notice is, as might be expected, given of wood paving. All the important plans are spoken of, and the companies, and a descriptive route is supplied of the principal London streets, and the peculiar specimens of paving laid down and in trial in the respective districts.

Whitworth's Street Sweeping Machine takes its share of notice, and is followed by a reference to the general character of pavements in the provinces, concluding with that of the German Continent, of Paris, and even America.

If we dwell at length on a notice which is usually dismissed in half a dozen lines, it must be understood as arising out of the pleasure we experience in the perusal of the contents of this work. But we must not stand longer at the threshold of temptation. Chapters ten and eleven are devoted to the railways of Great Britain and America. The first refers to the Acts for new lines passed in the last Session of Parliament—gives an abstract of the Report of the Board of Enquiry—notices the lines completed and opened during the last year, and describes the principal with some minuteness. The second is accompanied by a map of the railroads in the United States, and runs to a length which the interest of the subject both demands and justifies.

But it is with the seventeenth chapter we have principally to do, although we may dismiss it with fewest words: it is not to be transcribed nor abridged for any purpose within our province. Under the head of public improvements we have reference made to most of the important buildings carrying on during the last year, and some excellent wood engravings aid in the illustration. Of the number of cuts we give the following enumeration:—

1. Taylor's Institute, Oxford.
2. Cheltenham Proprietary School.
3 and 4. Lincoln's-Inn-Buildings, plan and elevation.
5. London Terminus. Dover, Brighton, and Croydon Railway.
6. Glasgow Corn-Exchange.

But many other works besides are noticed, and it is needless for us to add that the usual condensed mass of information, select and varied on all matters of public polity for the past year, chronicled and tabled out, will be found, as has been found in the pages of this superior annual heretofore.

Wood Pavement, its Origin and Progress.—By ALEX. S. BLACKIE, F.S.A. London. Sherwood, & Co.

This is a pamphlet of considerable length, devoted, we should say, more to an exposition of the peculiar claims of Mr. Stead, with whom the author is in some way associated, and in vindication of that gentleman's merits as an original patentee, than to a merely disinterested view of the subject, as might be inferred from the heading. Not that we say that it is not right it should be so; nor, on the other hand, that it is on this account less likely to be what it purports to be, for it would be hardly possible to treat Mr. Stead's case fully and fairly without bringing the whole question tolerably well under review; the best evidence in support of Mr. Stead's case may be at the same time the best evidence in support of wood paving; and we are bound to say that Mr. Blackie, in the discharge of his task as an advocate (assuming him to be such), has collected a great deal of valuable matter in the shape of estimates and reports, and furnished a history, or the elements of one, for wood paving *pratiques* up to this period.

Building Societies.—Proceedings in the Court of Common Sense, in the case of Shareholders v. Directors.—London, Simpkin & Marshall.

Our readers will recollect that in an early stage of our career we called attention to the important question of building societies, and threw out a word of caution, as it seemed to us necessary, to guard against the reckless pursuit

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